



**WATER MANAGEMENT DIVISION  
MONTHLY REPORT**

**Information Exchange Bulletin**

**Vol. No. 99 – 7**

**Date: 13 August 1999**

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**RESERVOIR OPERATION AND SYSTEM STATUS  
FOR JULY 1999**

**HIGHLIGHTS** –The stage at Cairo began the month at 28.84' and ended July at 22.66'. The Ohio River crested at Cairo on the 5<sup>th</sup> at 32.77 feet and the lowest stage was 21.16' on the 25<sup>th</sup>. Normal stage for July is 22 feet.

**WEATHER** – The weather during July was hot and dry across the Ohio River Basin. A stalled upper air ridge prevented moisture supplies for much of the month and created a dome of hot air. Many daily maximum temperature records were set during the month. Columbus tied the record high monthly average for July. Louisville had the second driest July on record. Pennsylvania received some rainfall. However, much of the rain at Pittsburgh was one storm late in the month. Kentucky was the driest area of the basin during July.

The following table summarizes temperature and precipitation for July:

**TEMPERATURE AND PRECIPITATION – JULY 1999**

	TEMPERATURE		PRECIPITATION	
STATION	OBSERVED DEGREES F	DEPARTURE FROM NORMAL	OBSERVED INCHES	DEPARTURE FROM NORMAL
Pittsburgh, PA	76.0	+3.9	6.25	+2.50
Charleston, WV	79.1	+4.0	5.37	+0.38
Columbus, OH	80.2	+7.0	3.02	-1.29
Cincinnati, OH	79.0	+3.9	3.16	-1.08
Louisville, KY	83.2	+6.0	0.34	-4.17
Indianapolis, IN	79.2	+3.8	2.96	-1.51

Evansville, IN	79.4	+1.0	2.00	-2.04
Nashville, TN	82.0	+3.0	3.19	-0.40

**STREAMFLOW** -- Ohio River monthly average flows for July ranged from a low of 36 percent of normal at Evansville, IN to a high of 84 percent of normal at Paducah, KY. Daily flows ranged from a low of 13 percent of normal at Cincinnati, OH to a high of 182 percent of normal at Huntington, WV.

The following table presents the flow data summary for July at the Ohio River Index Stations:

**FLOW DATA – JULY 1999**

STATION	AVERAGE MONTHLY FLOW	PERCENT LONG-TERM NORMAL		
		MONTHLY	DAILY	
	CUBIC FEET/SECOND		HIGH	LOW
Pittsburgh, PA	6,999	50	125	32
Huntington, WV	19,161	53	182	14
Cincinnati, OH	19,400	43	123	13
Louisville, KY	19,613	37	111	13
Evansville, IN	22,516	36	105	16
Paducah, KY	117,160	84	161	36

**RESERVOIRS** -- July started with 1.0% utilization of the total system flood control storage and reached a high of 1.5% on the 4<sup>th</sup> before ending the month at 0.5%. System-wide augmentation storage decreased from 95.4% at the beginning of the month to 92.0% by the end of the month. No significant flood storage utilization in excess of 25% occurred at any of the reservoir projects during July.

The following table depicts storage change by tributary reservoir subsystem for July:

CHANGE IN STORAGE TRIBUTARY-RESERVOIR SUBSYSTEM	(ACRE-FEET)
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Allegheny-Monongahela-Beaver	-126,300
Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte	-39,600
Twelvepole-Big Sandy-Little Sandy-Scioto	-10,500
Little Miami-Licking-Mill Creek-Great Miami	-7,500
Kentucky-Salt-Green-Wabash	-33,400
Cumberland	-456,600
<b>TOTAL</b>	<b>-673,900</b>

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